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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,956	03/09/2006	Wilhelm Tobben	14069-00001-US	3706

23416 7590 10/06/2008

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EXAMINER	
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ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
10/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,956	TOBBEN ET AL.	
	Examiner	Art Unit	
	MICHELE JACOBSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5,6 and 9-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3, 5, 6 and 9-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3, 6 and 9-12are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshiaki et al. European Patent Application Publication 920808 (hereafter referred to as Toshiaki)

3. Toshiaki teaches that fibrous casings are preferred for sausage such a casing has good appearance and can produce an image that the sausages are of high quality. (Para. 2) Polyamide films such a polyhexamethylene adipamides which are employed as synthetic plastic casings are advantageous in that they give some smoking effect under high humidity conditions, that they have high tensile strength at break, high impact strength, excellent dimensional stability and excellent oxygen barrier properties. (Para. 3) However, the smoking effect achieved with polyamide films is very small compared with those achieved by fibrous casings. (Para. 3) By the addition of 0.1 to 10% by weight of cellulose powder to a polyamide/cellulose acetate propionate sausage casing its smoking performance is improved and the resulting casing has a matted and grained uneven surface which gives the impression that the encased product is of high quality. (Para. 12) As the polyamide PA6, PA6/66, PA11, PA12, PA6/12 and mixtures

thereof are used. (Para. 11) The film of the invention can be subjected to biaxial orientation stretching to about 1.0-3.5 fold in both directions. When the casing is immersed in a 95° C hot water bath for 30 seconds it shrinks by 1 to 30% in both directions so that the casing material remains in intimate contact with the contents even after the smoked product is cooled thus giving a crumple-free final cased product. (Para. 14) The water vapor permeability for an example casing of the invention (example 2) comprising 75% polyamide to which cellulose acetate propionate and cellulose powder had been added is recited to be 293 g/m^2*day*bar (cm^3/m^2*day*bar). (Table 1) The thickness of this casing is recited to be 40 µm. (Para. 20) Comparative example 2 comprising a 40 µm film composed of biaxially stretched PA6 resin was recited to have a water vapor permeability of 112 g/m^2*day*bar. (Para. 22, Table 1) The depth of the smoked skin for example 2 and comparative example 2 were recited to be 2 mm and 0.5 mm respectively. (Table 2)

4. Toshiaki is silent regarding the disposition of the recited casing in a multilayer film.

5. The examiner takes official notice that it is well known in the sausage casing art to utilize films with multiple layers in order to benefit from the different properties different types of layers can provide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the film produced by the combination of Toshiaki in a multilayer film. The production of a sausage casing as recited by Toshiaki disposed in a multilayer sausage casing film would have resulted in the invention as claimed in claims 1, 3, 6 and 9-12.

6. Regarding claims 11-13: The thickness of films is well known to affect their permeability. In the sausage art it is well known that depending on the sausage being manufactured different levels of water permeability are desired. For example, the water permeability of the casing for a dry sausage that is being cured is desired to be high in order to prevent the formation of jelly between the sausage and the casing and to facilitate the curing process. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have varied the thickness of the casing recited Toshiaki depending on the type of sausage being encased. This optimization of a result effective variable would have resulted in a casing with the thicknesses recited in claims 11-13.

7. Claims 5, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshiaki et al. European Patent Application Publication 920808 (hereafter referred to as Toshiaki) and Sears et al. U.S. Patent Application Publication No. 2002/0000683 (hereafter referred to as Sears).

8. Toshiaki teaches what is recited above but is silent regarding the length of the cellulose fibers within the cellulose powder recited

9. Sears teaches improved composites containing cellulosic pulp fibers dispersed in a matrix, wherein the matrix comprises a polymeric material and said cellulosic pulp fibers comprise greater than 1% and less than 60% by weight of the composite. (Para. 16) Suitable polymeric material includes polyamides, specifically nylon 6, nylon 12,

nylon 66 or mixtures thereof. (Para. 24, 25) The granulated cellulosic fibers typically have an average length of between 0.1 and 6 mm (100-6000 μm) An advantage of the composition recited is the reduced discoloration in the resultant composite. Prior use of pulp fibers typically resulted in substantial or severe discoloration of the final product. This discoloration is significantly reduced or avoided using the composition of the invention. (Para. 31) One surprising advantage resulting from the invention was the ability to melt blend the polymeric material with pulp fibers at lower temperatures than the melting temperature of the polymeric material. (Para. 44) The composition of the invention is recited to be useful for melt extrusion. (Para. 45)

10. Both Toshiaki and Sears are directed to cellulose fibers dispersed in a polyamide matrix.

11. Toshiaki teaches the benefits of both polyamide and cellulose fiber films, the combination of which is recited in the inventive film in order to harness the benefits of improved appearance for a film with higher tensile strength. One of ordinary skill in the art at the time the invention was made would have been motivated to modify the casing recited by Toshiaki by replacing the cellulose acetate propionate disclosed with cellulose fiber in order to simplify the invention of Toshiaki and reduce the complexity of the production process.

12. The invention as recited by Sears would have been an obvious choice for this replacement because of the benefits of reduced discoloration in the resultant composite and the ability to melt blend the polymeric material with pulp fibers at lower temperatures than the melting temperature of the polymeric material as recited by

Sears. As addressed above, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed such a film in a multilayer sausage casing film. The disposition of a film as recited by Toshiaki using the inventive composition of Sears in a multilayer sausage casing would have resulted in the invention as claimed in claim 5.

13. The combination of Sears and Toshiaki is silent regarding the area stretching ratio and degree of reshrinkage of the sausage casing film.

14. Since the composition taught by Sears is the same as that taught by applicant (same polyamides, substantially overlapping percentages of cellulose fiber (1-60% for Sears compared to 0.1-70% for applicant), it is the examiners opinion that the area stretching ratio and degree of reshrinkage of the sausage casing film recited in claims 14 and 15 would be inherent to the sausage casing comprising the film taught by Sears.

Response to Arguments

1. Applicant's amendment to limit claim 1 to a multi-layer film is sufficient to overcome the rejection under 35 USC 102(b) over Toshiaki set forth in the previous office action, which is therefore withdrawn.

2. Applicant's arguments filed 7/1/08 have been fully considered but they are not persuasive. Regarding applicant's assertion on page 5 of the remarks that Toshiaki does not disclose a multi-layer casing that is biaxially stretched are not completely accurate since the invention disclosed by Toshiaki is biaxially stretched.

3. Applicant asserts on page 6 of the remarks that because Sears is not directed towards a biaxially stretched seamless tube casing that it is not analogous art is rejected by the examiner since both Sears and Toshiaki are directed towards cellulose material disposed in a polyamide matrix. The production and properties of such materials directly affect the manufacture of food casings and therefore even though Sears does not specifically disclose the use of the composite recited for a food casing, the material disclosed is directly related to materials important to the food casing art.

4. Applicant asserts on page 6 of the remarks that the combination of Toshiaki and Sears would produce an article contradictory to that enumerated in the previous office action. Applicant states that "Sears just teaches to use a mixture of polyamide and cellulose acetate propionate" which is incorrect. Sears teaches a mixture of polyamide and cellulosic pulp fibers. Applicant further asserts that Sears "in combination with Toshiaki would lead to a cellulosic material which is comprised within a casing and then should improve the smoke properties of the casing". It is unclear to the examiner what argument applicant is referencing in this statement since the examiner made not assertions about the smoke properties of the resulting casing in the previous office action. Applicant goes on to state that "a person skilled in the art would be prevented from using the teaching of Sears to merely mix cellulosic material and polyamide, since pure polyamide casings are not appropriate according to Toshiaki if smoke properties are an issue". Both Sears and Toshiaki are directed to compositions that include cellulose materials and are not pure polyamide casings. Applicant appears to be contradicting themselves in that the combination of polyamide and cellulosic material is

different from the pure polyamide casing Toshiaki teaches away from. It is unclear to the examiner what point applicant is intending to make with this argument.

5. On page 7 of the remarks applicant states "there is no hint in Toshiaki to use the cellulose acetate propionate". This statement is incorrect. Toshiaki specifically discloses using cellulose acetate propionate. The smoke properties that can be obtained without the use of cellulose acetate propionate referenced by applicant on page 7 of the remarks are not germane since smoking properties are not specifically recited in the claims.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1794

Michele L. Jacobson
Examiner /M. J./
Art Unit 1794